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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|-----------------------|
| 10/716,971 | 11/18/2003 | Edward William Adams | 7725-0001.02 | 7564 |
| 23980 | 7590 | 02/25/2005 | | EXAMINER LE, HOA T |
| REED INTELLECTUAL PROPERTY LAW GROUP 800 MENLO AVENUE, SUITE 210 MENLO PARK, CA 94025 | | | ART UNIT 1773 | PAPER NUMBER |

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|------------------------------|------------------------|---------------------|
| | 10/716,971 | ADAMS ET AL |
| Examiner | Art Unit | |
| H. T. Le | 1773 | |

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 03 December 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-189 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 1-18,20-54,56,58-65,67-113,115-164 and 166-189 is/are allowed.

6) Claim(s) 19,55,57,66,114 and 165 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: ____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 19, 55, 57, 66, 114, and 165 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19, the “hydrophobic surfactant” has no antecedent basis. This problem can be corrected if this claim is amended to be dependent on claim 18.

Claim 55 is meaningless because of the phrase “the selected from the group” (line 1). It appears that the subject following “the” is missing.

Claim 57 is in conflict with claim 56 upon which it depends. Claim 56 recites a bonding formed from a non-covalent interaction while claim 57, which depends on claim 56, recites a covalent interaction. This problem could have been obviated if claim 57 was dependent on claim 54.

Claim 66 is in conflict with claim 60 upon which it indirectly depends. Claim 60 requires the inner core be a semiconductive material while claim 66 requires the inner core to be metallic. Claim 66 should be made dependent on claim 59 to correct this problem.

Claim 114, the “hydrophobic surfactant” has no antecedent basis.

Claim 165 appears to be more logical if dependent on claim 164 instead of claim 154 as recited.

Terminal Disclaimer

2. The terminal disclaimer filed on December 3, 2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of the Application SN 10/717,288 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Subject Matter

3. In view of the proper Terminal Disclaimer filed December 3, 2004, claims 1-18, 20-54, 56, 58-65, 67-113, 115-164, and 166-189 are allowed.

4. Claims 19, 55, 57, 66, 114, and 165 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

5. This application is in condition for allowance except for the presence of minor USC 112 second paragraph problems as discussed above. Multiple efforts (three separate phone calls and voice messages on three different days) have been tried to reach Applicants' Representative, Attorney Dianne Reed, in order to expedite the allowance of the application by Examiner's Amendment. However, the failure of Applicants' response to these messages has prompted this rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511. The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



H. T. Le
Primary Examiner
Art Unit 1773